

What is claimed is:

1. A method for preparing ceramic green compacts for ceramic components, especially multilayer assemblies, characterized by the steps:

- a) the preparation of a dispersing agent solution by homogenizing one or more dispersing agents in combination with one organic acid in a solvent mixture;
- b) the preparation of a binder solution by homogenizing the solvent mixture from step a), one or more acrylate/methacrylate copolymers as the binder and one or more softeners;
- c) the preparation of a first dispersion by homogenizing a ceramic powder and the dispersing agent solution, and subsequent deagglomeration,
- d) the preparation of a second dispersion by homogenizing the first dispersion and the binder solution; and
- e) the removal of air and highly volatile solvent components from the second dispersion.

2. The method as recited in Claim 1, wherein polymeric dispersing agents having acid groups are used as the dispersing agents.

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3. The method as recited in Claim 1 or 2, wherein oxa acids are used as the organic acid.

4. The method as recited in Claim 3, wherein the oxa acids are selected from the group made up of 3,6-dioxaheptanoic acid, 3,6,9-trioxadecanoic acid, 3,6,9-trioxaundecanedioic acid or polyglycol diacid.

5. The method as recited in one of Claims 1 through 4, wherein the solvent mixture is selected from the group made up

of alcohols, esters and ketones, the solvent mixture containing at least one alcohol.

6. The method as recited in Claim 5, wherein the solvent mixture is selected from the group made up of ethanol, isopropanol, n-propanol, n-butanol, ethyl acetate, butyl acetate, 1-methoxy-2-propyl acetate and methylethyl ketone.

7. The method as recited in one of the preceding claims, wherein a thermal decomposition of the binder polymer takes place by depolymerization.

8. The method as recited in one of Claims 1 through 7, wherein the softener is an ester-based, phthalate-free softener.

9. The method as recited in Claim 8, wherein the softener is an ester of citric acid or adipic acid.

10. The method as recited in Claim 8 or 9, wherein the softener is selected from the group made up of tributyl citrate, triethyl citrate, acetyltributyl citrate, bis-2-ethylhexyl adipate and isononyl adipate.

11. The method as recited in one of the preceding claims, wherein the ceramic powder is a PZT powder.

12. The method as recited in Claim 10 or 11, wherein the ceramic powder and the dispersing agent solution are homogenized at a proportion between 70:30 to 90:10, preferably at a proportion of 85:15.

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13. The method as recited in one of the preceding claims, wherein the first dispersion and the binder solution are homogenized at a proportion between 70:30 to 90:10, preferably at a proportion of 80:20.

14. The method as recited in one of the preceding claims, wherein the removal of air and highly volatile solvent components from the second dispersion takes place simultaneously, with the aid of a vacuum pump.

15. The method as recited in one of the preceding claims, wherein the proportion of the binder to the softener is in the range of 55:45 and 75:25, preferably 67:33.

16. The use of ceramic green compacts as recited in one of Claims 1 through 15, for producing piezo-multilayer actors.